

IFWO

RAW SEQUENCE LISTING

1 2241 7

DATE: 09/01/2004

PATENT APPLICATION: US/10/790,224A

TIME: 13:36:00

Input Set : D:\OP1741seqUS.txt

Output Set: N:\CRF4\09012004\J790224A.raw

- 3 <110> APPLICANT: Yumi Matsuzaki, Jun Nakamura and Kenichi Hashiguchi 5 <120> TITLE OF INVENTION: Method for producing L-arginine or L-lysine by fermentation
- 7 <130> FILE REFERENCE: US-162
- 9 <140> CURRENT APPLICATION NUMBER: US/10/790,224A
- 10 <141> CURRENT FILING DATE: 2004-03-02
- 12 <150> PRIOR APPLICATION NUMBER: JP 2003-056129
- 13 <151> PRIOR FILING DATE: 2003-03-03
- 15 <160> NUMBER OF SEQ ID NOS: 24
- 17 <170> SOFTWARE: PatentIn Ver. 2.0
- 20 <210> SEQ ID NO: 1
- 21 <211> LENGTH: 25
- 22 <212> TYPE: DNA
- 23 <213> ORGANISM: Artificial Sequence
- 25 <220> FEATURE:
- 26 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for PCR
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- 33 <212> TYPE: DNA
- 34 <213> ORGANISM: Artificial Sequence
- 36 <220> FEATURE:
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- 42 <210> SEQ ID NO: 3
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- 44 <212> TYPE: DNA
- 45 <213> ORGANISM: Artificial Sequence
- 47 <220> FEATURE:
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- 51 cccctagttc aaggettgtt aatc
- 53 <210> SEQ ID NO: 4
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- 56 <213> ORGANISM: Artificial Sequence
- 58 <220> FEATURE:
- 59 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for PCR
- 61 <400> SEQUENCE: 4
- 62 gtcttacctc ggctggttgg ccagc
- 64 <210> SEQ ID NO: 5
- 65 <211> LENGTH: 23



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- 66 <212> TYPE: DNA 67 <213> ORGANISM: Artificial Sequence 69 <220> FEATURE: 70 <223> OTHER INFORMATION: Description of Artificial Sequence: primer 72 <400> SEQUENCE: 5
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- 77 <212> TYPE: DNA
- 78 <213> ORGANISM: Artificial Sequence
- 80 <220> FEATURE:
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- 83 <400> SEQUENCE: 6
- 84 cgatcaccag caacccacgc a

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- 86 <210> SEQ ID NO: 7
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- 88 <212> TYPE: DNA
- 89 <213> ORGANISM: Artificial Sequence
- 91 <220> FEATURE:
- 92 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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- 97 <210> SEQ ID NO: 8
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- 121 <212> TYPE: DNA
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- 130 <210> SEQ ID NO: 11 131 <211> LENGTH: 22
- 132 <212> TYPE: DNA

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133 <213> ORGANISM: Artificial Sequence 135 <220> FEATURE: 136 <223> OTHER INFORMATION: Description of Artificial Sequence: primer 138 <400> SEQUENCE: 11 139 gtagcacctt acqaccaaac cq 22 141 <210> SEQ ID NO: 12 142 <211> LENGTH: 20 143 <212> TYPE: DNA 144 <213> ORGANISM: Artificial Sequence 146 <220> FEATURE: 147 <223> OTHER INFORMATION: Description of Artificial Sequence: primer 149 <400> SEQUENCE: 12 150 ggagccggtc gacgaggagc 20 152 <210> SEQ ID NO: 13 153 <211> LENGTH: 23 154 <212> TYPE: DNA 155 <213> ORGANISM: Artificial Sequence 157 <220> FEATURE: 158 <223> OTHER INFORMATION: Description of Artificial Sequence: primer 160 <400> SEQUENCE: 13 161 gccccgggca ggcaagaatc ctc 23 163 <210> SEQ ID NO: 14 164 <211> LENGTH: 21 165 <212> TYPE: DNA 166 <213> ORGANISM: Artificial Sequence 168 <220> FEATURE: 169 <223> OTHER INFORMATION: Description of Artificial Sequence: primer 171 <400> SEQUENCE: 14 172 tccccgggag gctctctgcg g 21 174 <210> SEQ ID NO: 15 175 <211> LENGTH: 4235 176 <212> TYPE: DNA 177 <213> ORGANISM: Brevibacterium flavum 179 <220> FEATURE: 180 <221> NAME/KEY: CDS 181 <222> LOCATION: (1852)..(2364) 183 <400> SEQUENCE: 15 184 aaacccgggt tttcttctgc aactcgggcg ccgaagcaaa cgaggctgct ttcaagattg 60 185 cacgettgae tggtegttee eggattetgg etgeagttea tggttteeae ggeegeacea 120 186 tgggttccct cgcgctgact ggccagccag acaagcgtga agcgttcctg ccaatgccaa 180 187 gcggtgtgga gttctaccct tacggcgaca ccgattactt gcgcaaaatg gtagaaacca 240 188 acccaacgga tgtggctgct atcttcctcg agccaatcca gggtgaaacg ggcgttgttc 300 189 cagcacctga aggatteete aaggeagtge gegagetgtg egatgagtae ggeatettga 360 190 tgatcaccga tgaagtccag actggcgttg gccgtaccgg cgatttcttt gcacatcagc 420 191 acgatggcgt tgttcccgat gtggtgacca tggccaaggg acttggcggc ggtcttccca 480 192 teggtgettg tttggeeact ggeegtgeag etgaattgat gaeeceagge aageaeggea 540 193 ccactttegg tggcaaceca gttgettgtg cagetgeeaa ggcagtgetg tetgttgteg 600

194 atgacgettt etgegeagaa gttaceegea agggegaget gtteaaggta ettettgeea 660 195 aggttgaegg egttgtagae gteegtggea ggggettgat gttgggegtg gtgetggage 720

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196	gcg	acgt	cgc	aaag	caag	ct g	ttct	tgat	g gt	ttta	agca	cgg	cgtt	att	ttga	atgcac	780
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										gatctcaccc							
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				ccctgcagga													
							caatttccac										
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										gcaggcctta							
	ctgggcgatg																
				ccatcatcgc													1500
										aaggttgttg							
										acctgggtat							
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													aagcagaaaa				
													cgaggtaaga				
215	900	cugui	uug	cucu	gccg	95 9	egge	cgcc	g gc	gecaaceage			cyayytaaya				
216													ř.			Met Ser	
	c++	aaa	+ a =	acc	aaa	tas	202	000	~~~	224	++-	t	999	~+ ~	2 a t	L ~~~	1005
																	1905
219	пеп	GIY	561	Thr	PLO	ser	1111	10	GIU	ASII	ьeu	ASII		vai	THE	Arg	
	a a t	~~~	_	caa	aat	ata	a++		~~~				15				1050
221				Gln													1953
221	1111	20	Arg	GIII	Ala	ьeu	25	ьец	GIII	тте	ьеи	Asp 30	гуѕ	GIII	ьуѕ	vai	
	200		a	~+ a	a aa	ata		~~~	++~	~+~	~ + ~						0007
223	Thr	cor	Cla	gta	Cla	Tou	Cor	gaa	tag	tou	cug	gat	gaa	ggc	atc	gat	2001
225	35	ser	GIII	Val	GIII		ser	Giu	ьец	ьeu		Asp	GIU	GIY	тте		
		200	a	aaa	200	40	+ a a	~~~	~~+	~ - ~	45					50	2040
227				gcc													2049
228	TIE	1111	GIII	Ala	55	ьeu	ser	Arg	Asp		Asp	GIU	ьeu	GIY		Arg	
	224	~++	999			~~~	~~-	~~~	~ ~ ~	60	.				65		0005
																gta .	2097
	цуѕ	Val	Arg	Pro	Asp	GIY	GIY	Arg		Tyr	Tyr	Ala	val	_	Pro	vai	
231				70					75					80			
				gcc													2145
	Asp	ser		Ala	Arg	GIU	Asp		Arg	GLY	Pro	Ser		Lys	Leu	Arg	
234			85					90					95				
235	cgc	atg	ctt	gat	gaa	ctg	ctg	gtt	tct	aca	gat	cat	tcc	ggc	aac	atc	2193
	Arg		Leu	Asp	Glu	Leu		Val	Ser	Thr	Asp		Ser	Gly	Asn	Ile	
237		100					105					110					
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		Met	Leu	Arg	Thr		Pro	Gly	Ala	Ala	Gln	Tyr	Leu	Ala	Ser	Phe	
	115					120					125					130	
				gtg													2289
	Ile	Asp	Arg	Val	Gly	Leu	Lys	Glu	Val	Val	Gly	Thr	Ile	Ala	Gly	Asp	
243					135					140					145		
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248 Gly Glu Leu Leu Ser Gly Arg Thr Thr
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250 gcttgttaat cgcttgttaa tgcaggcagg taaggtataa cccgagtgtt ttttcgagga 2444
251 ataccaaccc tttcaacaca ataattttct ttaaacatcc ttgctgtcca ccacggctgg 2504
252 caaggaactt aaaatgaagg agcacacctc atgactaacc gcatcgttct tgcatactcc 2564
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254 atcgcagttt ctctcgacct gggccagggt ggagagaaca tggacaacgt tcgccagcgt 2684
255 gcattggatg ccggtgcagc tgagtccatc gttgttgatg caaaggatga gttcgctgag 2744
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263 ggtaacgctc cagatgaggt catcatctcc ttcgagggtg gcaagccagt ctccatcgat 3224
264 ggccgtccag tctccgtact gcaggctatt gaagagctga accgtcgtgc aggcqcacaq 3284
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292 Lys Val Thr Ser Gln Val Gln Leu Ser Glu Leu Leu Leu Asp Glu Gly
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294 Ile Asp Ile Thr Gln Ala Thr Leu Ser Arg Asp Leu Asp Glu Leu Gly
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VERIFICATION SUMMARY

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